IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:	)	
	)	Group Art Unit: 1713
YASHIKI; MINAMI	)	
	)	Examiner: Lu, Caixia
Serial No. 10/025,548	)	
	)	
Filed: December 26, 2001	)	

For: **SOLID TITANIUM CATALYST COMPONENT, ETHYLENE POLYMERIZATION CATALYST CONTAINING THE SAME, AND ETHYLENE POLYMERIZATION PROCESS**

APPENDIX A

Please amend the following claims as indicated according to the July 30, 2003, revision to 37 C.F.R. § 1.121 concerning a manner for making claim amendments.

1. (Currently Amended) A solid titanium catalyst component being obtained by a process comprising:

a step of bringing (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to a temperature of 105 to 115°C and maintaining the contact product (i) at this temperature,

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), having a catalytic activity of at or around 44,800 ~~to 52,800~~ g-polymer/g-catalyst and a ratio of powdery having a particle size of less than 100 μm of 1.5% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

2. (Currently Amended) A solid titanium catalyst component being obtained by a process comprising:

a step of bridging (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to maintain the contact product (i) as a given temperature (T1) of 105 to 115°C, to which additional organosilicon compound having no active hydrogen (c) is added in an amount of not more than 0.5 mol based on 1 mol of the

magnesium compound (a) during the elevation of the temperature from T1 - 10°C to T1, or after the completion of the temperature elevation, so as to bring the compound (c) into contact with the contact product (i),

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), and having a catalytic activity of at or around 52,900 ~~to 54,600~~ g-polymer/g-catalyst and a ratio of powdery polymer having a particle size of less than 100 μm of 0.6% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

3. (Original) An ethylene polymerization catalyst comprising:

[I] the solid titanium catalyst component as claimed in any one of claims 1 and 2, and

[II] an organometallic compound.

4. (Original) An ethylene polymerization process comprising polymerizing ethylene or copolymerizing ethylene and

a comonomer in the presence of the catalyst as claimed in claim 3.

5. (New) A solid titanium catalyst component being obtained by a process comprising:

a step of bringing (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to a temperature of 105 to 115°C and maintaining the contact product (i) at this temperature,

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), having a catalytic activity of at or around 49,500 g-polymer/g-catalyst and a ratio of powdery having a particle size of less than 100 μm of 1.5% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

6. (New) A solid titanium catalyst component being obtained by a process comprising:

a step of bringing (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to a temperature of 105 to 115°C and maintaining the contact product (i) at this temperature,

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), having a catalytic activity of at or around 49,700 g-polymer/g-catalyst and a ratio of powdery having a particle size of less than 100 μm of 1.5% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

7. (New) A solid titanium catalyst component being obtained by a process comprising:

a step of bringing (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to a temperature of 105 to 115°C and maintaining the contact product (i) at this temperature,

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), having a catalytic activity of at or around 50,100 g-polymer/g-catalyst and a ratio of powdery having a particle size of less than 100 μm of 1.5% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

8. (New) A solid titanium catalyst component being obtained by a process comprising:

a step of bringing (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an

amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting contact product (i) to a temperature of 105 to 115°C and maintaining the contact product (i) at this temperature,

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), having a catalytic activity of at or around 52,800 g-polymer/g-catalyst and a ratio of powdery having a particle size of less than 100 μm of 1.5% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.

9. (New) A solid titanium catalyst component being obtained by a process comprising:

a step of bridging (a) a liquid magnesium compound into contact with (b) a liquid titanium compound in the presence of (c) an organosilicon compound having no active hydrogen in an amount of 0.25 to 0.35 mol based on 1 mol of the magnesium compound (a); and

a step of elevating the temperature of the resulting

contact product (i) to maintain the contact product (i) as a given temperature (T1) of 105 to 115°C, to which additional organosilicon compound having no active hydrogen (c) is added in an amount of not more than 0.5 mol based on 1 mol of the magnesium compound (a) during the elevation of the temperature from T1 - 10°C to T1, or after the completion of the temperature elevation, so as to bring the compound (c) into contact with the contact product (i),

said solid titanium catalyst component comprising magnesium, titanium, halogen and the organosilicon compound having no active hydrogen (c), and having a catalytic activity of at or around 54,600 g-polymer/g-catalyst and a ratio of powdery polymer having a particle size of less than 100 μm of 0.6% by weight or below when used to polymerize ethylene for 2 hours at a temperature of 80°C and a partial pressure of ethylene of 4.0 kg/cm^2-G.